

REMARKS

The Final Office Action dated May 6, 2004 and references cited therein have been carefully reviewed. In an effort to place the above-identified patent application in condition for allowance, Applicants have, by this amendment, amended claim 27.

The Examiner indicated that claims 16, 18-23, 27, 29, 30, 33-45, 65, 67, and 71-73 are in allowable form. Applicants amended claim 27 to place the claim in independent form.

Applicants note that the Examiner did not acknowledge consideration of any of the foreign references cited in the Information Disclosure Statement mailed April 20, 2003, namely DE 2364458, DE 3340067, DE 3340067 or FR 2320345. Applicants again request consideration of these foreign references.

Claims 24, 46, 48, 50-52, and 54-64 were rejected under 35 USC 103(a) as being unpatentable over Richmond 4,264,263 in view of Trutzschler 3,859,066.

Applicants maintain that Trutzchler is non-analogous art since the reference is not directed to the art of coke ovens. Trutzchler is merely directed to a drum filter. Trutzchler 3,859,066 does not include any teachings that would motivate one skilled in the art to use the filter device in a coke oven operation. Indeed, the present invention is directed to prevent emission of charging gases through an opening in a leveler door of a coke oven. Trutzchler is directed to a particle filter, not a gas flow inhibitor. Indeed, Trutzchler discloses that air is blown through the plurality of filter elements to clean the filter. There is no teaching in Trutzchler of an arrangement to inhibit gas flow through an opening. It is noted that the Examiner did not respond to Applicants' previous argument that Trutzchler is non-analogous art.

Applicants further submit that the combination of Richmond in view of Trutzschler do not make obvious the rejected claims. Richmond does not disclose, teach or suggest the sealing

mechanism that is defined in claim 24. Claims 24 requires the housing to include a sealing mechanism that at least partially inhibits the flow of gases in front of the leveler door opening by creating a no-flow zone in a region at least closely adjacent to the front of the leveler door opening. Claim 24 defines the sealing mechanism as including at least one movable sealing element to at least partially seal an inner cross section of said leveler bar between the side segments of the leveler bar. The at least one movable sealing element is defined as including 1) at least one pivoting seal having a pivotable panel wherein the pivotable panel is movable between at least two of the cross segments of the leveler bar and/or 2) at least one cell wheel having a plurality of panels rotatable about an axis wherein at least one of the panels is movable between at least two of the cross segments of the leveler bar. This particular sealing mechanism is not disclosed or taught by Richmond and/or Trutzschler. As asserted by the Examiner, Richmond discloses a sealing arrangement as set forth in detail in FIGURES 3-5. The wedge 122 is designed to pivot on shaft 96. The wedge is designed to engage the sides, bottom and top of the leveler bar 16 as illustrated in FIGURE 3. The wedge arrangement does not at least partially seal an inner cross section of the leveler bar between the side segments of the leveler bar. The wedges are only designed to form a seal about the outer perimeter of the leveler bar. The wedge arrangement disclosed in Richmond is not a pivotable panel that is movable between at least two of the cross segments of the leveler bar. The wedges are never located between the cross segments of the leveler bar. The wedges can only be positioned about the outer perimeter of the leveler bar. The wedges also do not constitute a cell wheel having a plurality of panels rotatable about an axis wherein at least one of the panels is movable between at least two of the cross segments of the leveler bar. As stated above, the wedges are not located between the cross segments of the leveler bar, only about the outer perimeter of the leveler bar. As evident from Richmond, Richmond teaches a sealing arrangement for sealing about the outer perimeter of the

leveler bar. The present invention defines a sealing arrangement that is positioned at least partially internally of the leveler bar.

As stated above, Trutzschler does not disclose, teach or suggest any type of gas sealing arrangement. The particle filters of Trutzschler allow air to pass through the filters. The use of the particle filters of Trutzschler to seal the leveler bar of a coke oven would be unsuccessful. Furthermore, it is unclear how the arrangement of Trutzschler could be incorporated for use with a leveler bar to provide any type of sealing. Furthermore, due to the fact that Trutzschler is related to a different type of technology (e.g. particle filtration), there are no teachings in Trutzschler to motivate one skilled in the art to use any of the structures of Trutzschler for a gas seal for a leveler bar of a coke oven. Applicants submit that the combination of Richmond and Trutzschler does not support a rejection of claim 24. Applicants request reconsideration of the rejection of claim 24.

Referring now to claim 46, this claim also requires the sealing mechanism to include at least one movable sealing element to at least partially seal an inner cross section of the leveler bar between the side segments of the leveler bar. As set forth above, Richmond and Trutzschler do not disclose teach or suggest such an arrangement. Applicants request reconsideration of the rejection of claim 46 and all the claims dependent therefrom.

The Examiner commented on the rejection of dependent claims 48, 50-52 and 54-64. As to claim 48, Richmond does disclose a plurality of sealing wedges; however, Richmond does not disclose a plurality of sealing elements as defined in the claim 46. Applicants request reconsideration of the rejection of claim 48.

Concerning claims 50 and 51, Richmond does not disclose, teach or suggest at least one rotary lock having a pivotable panel wherein the pivotable panel is movable between at least two of the cross segments of the leveler bar. The sealing wedges of Richmond are located about the

perimeter of the lever bar, not between the cross segments of the lever bar. Applicants request reconsideration of the rejection of claims 50 and 51.

As to claim 52, Richmond does not disclose a sealing element including at least one cell wheel having a plurality of panels rotatable about an axis wherein at least one of the panels is movable between at least two of the cross segments of the leveler bar. The wedges of Richmond are not a cell wheel. The structure disclosed in Trutzschler is also not a cell wheel as defined in the claims. Applicants request reconsideration of the rejection of claim 52.

With respect to claim 54, Richmond does not disclose a two sealing plate arrangement as shown in FIGURE 2 of Applicants' application wherein the two sealing plates are secured to said housing and extending outwardly from the second end opening of the housing, and the two sealing plates are positioned substantially parallel to one another and oriented above and below the two cross segments when the leveler bar passes between the two sealing plates. Such a structure is completely absent from Richmond. Applicants request reconsideration of the rejection of claim 54.

Concerning the limitations of claims 55-64, these structures are not disclosed or taught by Richmond. The wedges disclosed in Richmond that engage the outer perimeter of the leveler bar are the only sealing structures disclosed and taught by Richmond. Such wedges do not teach the structures defined in claim 55-64. Applicants request reconsideration of the rejection of claims 55-64.

Applicants maintain that all the claims presently pending in above-identified patent application are patentably distinct from the cited art of record. However, should the Examiner determine the Amendment does not place the above-identified patent application in allowable form,

it is requested that the amendment be entered to place the patent application in better form for purposes of appeal.

Respectfully submitted,
FAY, SHARPE, FAGAN, MINNICH & McKEE

By: 

BRIAN E. TURUNG

Reg. No. 35,394

1100 Superior Avenue, 7th Floor

Cleveland, Ohio 44114-2579

Telephone: (216) 861-5582

Facsimile: (216) 241-1666